



Test  
TS EN ISO/IEC 17025  
AB-0716-T

|               |
|---------------|
| AB-0716-T     |
| TURT200168101 |
| 12-20         |

## TEST REPORT

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**REPORT NUMBER :** TURT200168101  
**APPLICANT NAME** ZENO ENDÜSTRİ SANAYİ ÜRÜNLERİ ANONİM ŞİRKETİ  
**ADDRESS** Üniversite Mah. Civan Sk. Allure Tower İstanbul No:1 İç Kapı No: 327  
Avcılar/İstanbul  
**Attention :** Nergiz Üstal (nergiz@mutlupatent.com)  
**SAMPLE DESCRIPTION :** One sample of "Find Your Match Game" Board Game  
**DATE IN:** 16 December, 2020 (16:35)  
**DATE OUT :** 22 December, 2020  
**TESTED MODEL NO :** -  
**CLAIMED MODEL NO :** -  
**COUNTRY OF ORIGIN :** NOT GIVEN  
**AGE GRADING :** 3+

Ezgi Aleyna Arı  
Customer Care Executive

Zeynep Akın  
Chemical Laboratory  
Manager

Nida Arslanbay  
Textile Laboratory Manager

Recep Yarliğan  
Toys&Hardline/Footwear  
Laboratory Manager

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| Test Method                                                 | Result | Requirements |
|-------------------------------------------------------------|--------|--------------|
|                                                             |        |              |
| TEST                                                        | Sample |              |
| SAFETY OF TOYS – PART 1: MECHANICAL AND PHYSICAL PROPERTIES | P      |              |
| SAFETY OF TOYS – PART 2: FLAMMABILITY                       | P      |              |
| SAFETY OF TOYS – PART 3: MIGRATION OF CERTAIN ELEMENTS      | P      |              |
| PHthalate Content                                           | P      |              |
| POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) ANALYSIS            | P      |              |
| DETECTION OF AMINES DERIVED FROM AZOCOLLOURANTS AND AZODYES | NA     |              |
| BENZENE DETERMINATION                                       | NA     |              |

P = MEETS BUYER' S REQUIREMENT / F = DOES NOT MEET BUYER' S REQUIREMENT / NR = NO REQUIREMENT / SC=STILL CONTINUES / X=NOT PERFORMED / NA = NOT APPLICABLE/ LS : LACK OF SAMPLE

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| Test Method  | Result                           | Requirements |
|--------------|----------------------------------|--------------|
| <b>PARTS</b> |                                  |              |
| 1            | Multicolor instructions paper    |              |
| 2            | Transparent cellophane paper box |              |
| 3            | Multicolor paper big card        |              |
| 4            | White card inner carton          |              |
| 5            | Grey inner carton                |              |
| 6            | Multicolor paper medium card     |              |
| 7            | Multicolor paper small card      |              |
| 8            | White textile pocket             |              |
| 9            | White thread                     |              |
| 10           | White inner box carton           |              |

Remark: Only suitable parts tested for the related tests.

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| Test Method | Result | Requirements |
|-------------|--------|--------------|
|-------------|--------|--------------|

*This report details the clauses appropriate to this item. Those clauses not referred to were considered not applicable.*

**SAFETY OF TOYS – PART 1: MECHANICAL AND PHYSICAL PROPERTIES**

BS EN 71 – 1: 2014 + A1 : 2018

The item was labelled: "Warning. Choking Hazard: Small parts. Not for children under 3 years."

The item was tested for children aged over 36 months.

The item was packaging in a cardboard box covered by shrink film which was considered to be disposable.

| SECTION | TEST                                                                                                                                                                                                                                                                                      | RESULTS                |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 4       | General Requirements                                                                                                                                                                                                                                                                      |                        |
| 4.1     | Material                                                                                                                                                                                                                                                                                  | Pass                   |
| 4.7     | Edges                                                                                                                                                                                                                                                                                     | Pass                   |
| 4.8     | Point & Metallic Wires                                                                                                                                                                                                                                                                    | Pass                   |
| 7       | Warning and Instruction for Use                                                                                                                                                                                                                                                           | ##                     |
| 7.2     | Toys not intended for children under 36 months<br>The graphical symbol was found to be incorrect (Too small) as the item bore a suitable text warning this clause is considered to pass however we recommend that the graphical symbol is either corrected or removed from the packaging. | Pass<br>See<br>Comment |

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| Test Method | Result | Requirements |
|-------------|--------|--------------|
|-------------|--------|--------------|

## The text of this note is for information only and the indents do not constitute requirements of this European Standard. The information is not exhaustive and Directive 2009/48/EC and the associated guidance documents should be consulted for further details.

The toy or, its packaging or document accompanying must be labelled with:

- The name and address of the manufacturer\*\* **(Not Present)**
- The name and address of the importer.\*\* **(Not Present)**
- Type, batch, serial or model number or other element allowing of toy identification **(Not Present)**
- A CE mark in the correct shape and size. **(Present)**
- Warning and other information should be in the national language(s) of the countries where the toy is marketed.

\*\* In the case of the toy sell in European countries, the toy, its packaging or document accompanying must be labelled with the name and address of the manufacturer and importer.

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| Test Method | Result | Requirements |
|-------------|--------|--------------|
|-------------|--------|--------------|

*This report details the clauses appropriate to this item. Those clauses not referred to were considered not applicable.*

**SAFETY OF TOYS – PART 2: FLAMMABILITY**

BS EN 71-2 : 2020

| SECTION | TEST                                                                            | RESULTS |
|---------|---------------------------------------------------------------------------------|---------|
| 4.1     | General                                                                         |         |
|         | Celluloid (cellulose nitrate) and materials with same burning behaviour in fire | Pass    |

The test results thus obtained can not be considered as providing an overall indication of the potential fire hazard of toys or materials when subjected to other sources of ignition.

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| Test Method | Result | Requirements |
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**SAFETY OF TOYS – PART 3: MIGRATION OF CERTAIN ELEMENTS**

BS EN 71-3:2019

Acid extraction method was used and migration elements content were determined by Inductively Coupled Plasma-ICP\_MS.

|                      | Results (mg/kg) |        |        |        | Detection Limit (mg/kg) | Requirements (mg/kg) Category III |
|----------------------|-----------------|--------|--------|--------|-------------------------|-----------------------------------|
|                      | Part 1          | Part 2 | Part 3 | Part 4 |                         |                                   |
| Antimony (Sb)        | ND              | ND     | ND     | ND     | 0,125                   | 560                               |
| Arsenic (As)         | ND              | ND     | ND     | ND     | 0,125                   | 47                                |
| Barium (Ba)          | 1.5             | ND     | 1.5    | 6.2    | 0,125                   | 18750                             |
| Cadmium (Cd)         | ND              | ND     | ND     | ND     | 0,125                   | 17                                |
| Chromium (III)       | ND              | ND     | ND     | ND     | 0,125                   | 460                               |
| Chromium (VI)        | ND              | ND     | ND     | ND     | 0,005                   | 0,053                             |
| Lead (Pb)            | ND              | ND     | ND     | ND     | 0,125                   | 23                                |
| Mercury (Hg)         | ND              | ND     | ND     | ND     | 0,0125                  | 94                                |
| Selenium (Se)        | ND              | ND     | ND     | ND     | 0,125                   | 460                               |
| Aluminium (Al)       | ND              | 2.9    | 22.8   | 100.6  | 0,125                   | 70000                             |
| Boron (B)            | 19.1            | ND     | 7.9    | 21.9   | 0,125                   | 15000                             |
| Cobalt (Co)          | 1.5             | 1.9    | ND     | ND     | 0,125                   | 130                               |
| Copper (Cu)          | ND              | ND     | ND     | ND     | 0,125                   | 7700                              |
| Manganese (Mn)       | 8.5             | 5.8    | 6.6    | 13.6   | 0,125                   | 15000                             |
| Nickel (Ni)          | ND              | ND     | ND     | ND     | 0,125                   | 930                               |
| Strontium (Sr)       | 35.2            | 28.1   | 38.6   | 43.9   | 0,125                   | 56000                             |
| Tin (Sn)             | ND              | ND     | ND     | ND     | 0,125                   | 180000                            |
| Organic tin $\Delta$ | ND              | ND     | ND     | ND     | 0,125                   | 12                                |
| Zinc (Zn)            | ND              | ND     | ND     | 7.7    | 0,125                   | 46000                             |

$\Delta$  = Confirmation test was performed on the tested component. The reported value was the sum of the migration values of Methyl tin, Butyl tin, Dibutyl tin, Tributyl tin, Tetrabutyl tin, n- Octyl tin, Di-n-octyl tin, Di-n-propyl tin, Diphenyl tin and Triphenyl tin after converted to Tributyl tin by calculation.

ppm (Part per million)  
ND

=mg / kg  
=Not Detected

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| Test Method | Result | Requirements |
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**SAFETY OF TOYS – PART 3: MIGRATION OF CERTAIN ELEMENTS**

BS EN 71-3:2019

Acid extraction method was used and migration elements content were determined by Inductively Coupled Plasma-ICP\_MS.

|                      | Results (mg/kg) |        |        |        | Detection Limit (mg/kg) | Requirements (mg/kg) Category III |
|----------------------|-----------------|--------|--------|--------|-------------------------|-----------------------------------|
|                      | Part 5          | Part 6 | Part 7 | Part 8 |                         |                                   |
| Antimony (Sb)        | ND              | ND     | ND     | ND     | 0,125                   | 560                               |
| Arsenic (As)         | ND              | ND     | ND     | ND     | 0,125                   | 47                                |
| Barium (Ba)          | 7.1             | 1.6    | ND     | ND     | 0,125                   | 18750                             |
| Cadmium (Cd)         | ND              | ND     | ND     | ND     | 0,125                   | 17                                |
| Chromium (III)       | ND              | ND     | ND     | ND     | 0,125                   | 460                               |
| Chromium (VI)        | ND              | ND     | ND     | ND     | 0,005                   | 0,053                             |
| Lead (Pb)            | ND              | ND     | ND     | ND     | 0,125                   | 23                                |
| Mercury (Hg)         | ND              | ND     | ND     | ND     | 0,0125                  | 94                                |
| Selenium (Se)        | ND              | ND     | ND     | ND     | 0,125                   | 460                               |
| Aluminium (Al)       | 86.4            | 21.4   | ND     | ND     | 0,125                   | 70000                             |
| Boron (B)            | 20.7            | 7.7    | ND     | ND     | 0,125                   | 15000                             |
| Cobalt (Co)          | ND              | ND     | ND     | ND     | 0,125                   | 130                               |
| Copper (Cu)          | ND              | ND     | ND     | ND     | 0,125                   | 7700                              |
| Manganese (Mn)       | 11.7            | 7.2    | 5.3    | ND     | 0,125                   | 15000                             |
| Nickel (Ni)          | ND              | ND     | ND     | ND     | 0,125                   | 930                               |
| Strontium (Sr)       | 40.8            | 38.2   | 22.0   | ND     | 0,125                   | 56000                             |
| Tin (Sn)             | ND              | ND     | ND     | ND     | 0,125                   | 180000                            |
| Organic tin $\Delta$ | ND              | ND     | ND     | ND     | 0,125                   | 12                                |
| Zinc (Zn)            | 8.1             | ND     | ND     | ND     | 0,125                   | 46000                             |

$\Delta$  = Confirmation test was performed on the tested component. The reported value was the sum of the migration values of Methyl tin, Butyl tin, Dibutyl tin, Tributyl tin, Tetrabutyl tin, n- Octyl tin, Di-n-octyl tin, Di-n-propyl tin, Diphenyl tin and Triphenyl tin after converted to Tributyl tin by calculation.

ppm (Part per million)  
ND

=mg / kg  
=Not Detected

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| Test Method | Result | Requirements |
|-------------|--------|--------------|
|-------------|--------|--------------|

### SAFETY OF TOYS – PART 3: MIGRATION OF CERTAIN ELEMENTS

BS EN 71-3:2019

Acid extraction method was used and migration elements content were determined by Inductively Coupled Plasma-ICP\_MS.

|                      | Results (mg/kg) |         |  |  | Detection Limit (mg/kg) | Requirements (mg/kg) Category III |
|----------------------|-----------------|---------|--|--|-------------------------|-----------------------------------|
|                      | Part 9          | Part 10 |  |  |                         |                                   |
| Antimony (Sb)        | ND              | ND      |  |  | 0,125                   | 560                               |
| Arsenic (As)         | ND              | ND      |  |  | 0,125                   | 47                                |
| Barium (Ba)          | ND              | 8.8     |  |  | 0,125                   | 18750                             |
| Cadmium (Cd)         | ND              | ND      |  |  | 0,125                   | 17                                |
| Chromium (III)       | ND              | ND      |  |  | 0,125                   | 460                               |
| Chromium (VI)        | ND              | ND      |  |  | 0,005                   | 0,053                             |
| Lead (Pb)            | ND              | 1.1     |  |  | 0,125                   | 23                                |
| Mercury (Hg)         | ND              | ND      |  |  | 0,0125                  | 94                                |
| Selenium (Se)        | ND              | ND      |  |  | 0,125                   | 460                               |
| Aluminium (Al)       | ND              | 291.9   |  |  | 0,125                   | 70000                             |
| Boron (B)            | ND              | 29.9    |  |  | 0,125                   | 15000                             |
| Cobalt (Co)          | ND              | ND      |  |  | 0,125                   | 130                               |
| Copper (Cu)          | ND              | ND      |  |  | 0,125                   | 7700                              |
| Manganese (Mn)       | ND              | 9.6     |  |  | 0,125                   | 15000                             |
| Nickel (Ni)          | ND              | ND      |  |  | 0,125                   | 930                               |
| Strontium (Sr)       | ND              | 41.2    |  |  | 0,125                   | 56000                             |
| Tin (Sn)             | ND              | ND      |  |  | 0,125                   | 180000                            |
| Organic tin $\Delta$ | ND              | ND      |  |  | 0,125                   | 12                                |
| Zinc (Zn)            | ND              | 14.2    |  |  | 0,125                   | 46000                             |

$\Delta$  = Confirmation test was performed on the tested component. The reported value was the sum of the migration values of Methyl tin, Butyl tin, Dibutyl tin, Tributyl tin, Tetrabutyl tin, n- Octyl tin, Di-n-octyl tin, Di-n-propyl tin, Diphenyl tin and Triphenyl tin after converted to Tributyl tin by calculation.

ppm (Part per million)  
ND

=mg / kg  
=Not Detected

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| Test Method | Result | Requirements |
|-------------|--------|--------------|
|-------------|--------|--------------|

**PHTHALATE CONTENT**

INTERTEK IHTM AL.2.026 based on EN 14372 : 2004

Method By Gas Chromatographic- Mass Spectrometric (GC- MS ) Analysis

|                                | <b>Part 2</b> |
|--------------------------------|---------------|
| DIBUTYL PHTHALATE (DBP)        | ND            |
| DIETHYL HEXYL PHTHALATE (DEHP) | ND            |
| BENZYL BUTYL PHTHALATE (BBP)   | ND            |
| SUM OF THREE PHTHALATES        | ND            |
|                                |               |
| DI-ISO-NONYL PHTHALATE (DINP)  | 147 ppm       |
| DI-N-OCTYL PHTHALATE (DNOP)    | ND            |
| DI-ISO-DECYL PHTHALATE (DIDP)  | ND            |
| SUM OF THREE PHTHALATES        | 147 ppm       |

ND =Not Detected  
ppm (part per million) =mg / kg  
Detection Limit =DIDP, DINP: 100 ppm, Other Phthalates: 10 ppm  
LIMIT (MAX.) =DBP,DEHP,BBP < 1000 ppm ; DINP, DNOP, DIDP < 1000 ppm

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| Test Method | Result | Requirements |
|-------------|--------|--------------|
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**POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) ANALYSIS**

INTERTEK IHTM AL.2.032 based on AfPS GS 2019:01

|   | Part 2                   | RESULT (mg/kg) | REQUIREMENT |
|---|--------------------------|----------------|-------------|
| 1 | Benzo (a) pyrene         | Not Detected   | 0.5 ppm     |
| 2 | Benzo (e) pyrene         | Not Detected   | 0.5 ppm     |
| 3 | Benzo (a) anthracene     | Not Detected   | 0.5 ppm     |
| 4 | Benzo (b) fluoranthene   | Not Detected   | 0.5 ppm     |
| 5 | Benzo (j) fluoranthene   | Not Detected   | 0.5 ppm     |
| 6 | Benzo (k) fluoranthene   | Not Detected   | 0.5 ppm     |
| 7 | Chrysene                 | Not Detected   | 0.5 ppm     |
| 8 | Dibenzo (a,h) anthracene | Not Detected   | 0.5 ppm     |

ppm (part per million)

= mg / kg

Detection Limit

= 0.1 ppm

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| Test Method | Result | Requirements |
|-------------|--------|--------------|
|-------------|--------|--------------|

SAMPLE PHOTO



TESTED PHOTO



## END OF TEST REPORT ##